when the user objects to the charge, in response to a fee collection notice from said charge collection terminal, the user enables a sending of data stored in said user terminal to said charge collection terminal, and the charge collection terminal enables the read out of said service request data and said digital signature data from said memory medium to confirm the provided desired service.

14. (Twice Amended) The method of charging for electronic commerce according to Claim 12, wherein:

said user terminal is controlled by the user, said service request data is stored once in said memory medium, and said service request data is impossible for the user to rewrite.

REMARKS

Claims 1-16 are pending in this application. Claims 1, 2, 4, 6, 9, 10, 12 and 14 have been twice amended. It is respectfully submitted that such amendments are supported by the specification, claims, abstract of the disclosure and the drawings as originally filed, and that no new matter has been added. In particular, support for the amendments to claims 6 and 14 is found in the specification from page 10, line 22, through page 11, line 2, and at page 13, lines 6-11.

Claim Rejections Under 35 U.S.C. §102

Claims 1, 7-9 and 15-16

The Examiner has rejected claims 1, 7-9 and 15-16 under 35 U.S.C. §102(e) as being anticipated by Hogan (U.S. Patent No. 5,699,528).

As per claim 1, the Examiner states that Hogan discloses a charging system for electronic commerce, which comprises a service provider terminal for providing service to a user via a network in

response to a request from a user terminal, the system charging a user a fee corresponding to service, comprising:

a charge collection terminal for collection a fee from user, which fee is reflected by service provided by service provider terminal (referring to figure 5, item 503),

the charge collection terminal existing individually from said service provider terminal (referring to figure 5).

Independent claim 1 has been twice amended to recite language from claim 2. Since the Examiner has already rejected claim 2 under 35 U.S.C. §103 as set forth below, the patentability of twice amended claim 1 will be addressed below in response to the Examiner's rejection of claim 2.

As per claim 7, the Examiner states that Hogan discloses the charging system for electronic commerce, wherein a service provider terminal charges a fee to user based on a time period service is provided to the user (referring to column 5, lines 32-33).

For the reasons set forth below in regard to twice amended claim 1, from which claim 7 directly depends, it is respectfully submitted that claim 7 is patentable over Hogan.

As per claim 8, the Examiner states that Hogan discloses the charging system for electronic commerce, wherein a service provider terminal charges a fee to user based on contents provided to the user (referring to column 4, lines 1-21).

For the reasons set forth below in regard to twice amended claim 1, from which claim 8 directly depends, it is respectfully submitted that claim 8 is patentable over Hogan.

The Examiner states that claim 9 is written in function method and contains the same limitations as claim 1, therefore the same rejections applied.

Independent claim 9 has been twice amended to recite language from claim 10. Since the Examiner has already rejected claim 10 under 35 U.S.C. §103 as set forth below, the patentability of twice amended claim 9 will be addressed below in response to the Examiner's rejection of claim 10.

The Examiner states that claim 15 is written in function method and contains the same limitations as claim 7, therefore the same rejections applied.

For the reasons set forth below in regard to twice amended claim 9, from which claim 15 directly depends, it is respectfully submitted that claim 15 is patentable over Hogan.

The Examiner states that claim 16 is written in function method and contains the same limitations as claim 8, therefore the same rejections applied.

For the reasons set forth below in regard to twice amended claim 9, from which claim 16 directly depends, it is respectfully submitted that claim 16 is patentable over Hogan.

Claim Rejections Under 35 U.S.C. §103

Claims 2-5 and 10-13

The Examiner has rejected claims 2-5 and 10-13 under 35 U.S.C. §103(a) as being unpatentable over Hogan (U.S. Patent No. 5,699,528) in view of Elgamal (U.S. Patent No. 5,671,279).

As per claim 2, the Examiner states that Hogan teaches the charging system for electronic commerce, wherein:

user terminal generates service request data and digital signature data and transmits them via the network to service provider terminal, the service request data is for requesting desired service for the user from service provider terminal and the digital signature data is created based on service request data (referring to column 8, lines 4-23); and

service provider terminal transmits to charge collection terminal service request data and charged fee data, the charged fee data calculated based on service request data (referring to column 33-62).

The Examiner concedes, however, that Hogan does not disclose that the service provider terminal transmits to charge collection terminal digital signature data. The Examiner states that Elgamal discloses service provider terminal transmits to charge collection terminal digital signature data (referring to column 10, lines 32). The Examiner concludes that it would have been obvious to one with ordinary skill in the art at the time the invention was made to combine Hogan's system with transmission digital signature data to charge collection terminal as in Elgamal in order to improve the system of Hogan by allowing service provider transmits digital signature, to the collection terminal for security purpose.

The Examiner's rejection of claim 2 is respectfully traversed. The Examiner contends that Hogan, at column 8, lines 4-23, teaches that the sending of service request data and that the digital signature data is created based on the service request data. As understood, Hogan merely discloses the encrypting of the data. Hogan does not teach, suggest or indicate that the signature data is based on the service request data. Instead, Hogan merely discloses the encrypting of data. Since the language of this portion of claim 2 has been incorporated into twice amended claim 1, it is respectfully submitted that twice amended claim 1 is patentable over Hogan even in view of Elgamal.

The Examiner's rejection of claim 2 is further traversed for yet another reason. In rejecting claim 2 the Examiner contends that Hogan teaches that the service provider terminal transmits to the charge collection terminal service request data. In doing so the

Examiner references column 33-62, yet no such columns exist in Hogan. Furthermore, the Examiner did not reference any line numbers. Notwithstanding the Examiner's apparently incorrect reference to Hogan, it is respectfully submitted that Hogan does not teach, suggest or indicate that the service provider terminal transmits service request data to the charge collection terminal. With applicant's invention as set forth in claim 2, by sending the service request data from the service provider terminal to the charge collection terminal, the charge collection terminal can check the requested fee. It is therefore respectfully submitted that twice amended claim 2 (which retains the feature described above) is patentable over Hogan even in view of Elgamal.

As per claim 3, the Examiner states that Hogan discloses digital signature data is created only by user (referring to column 8, lines 12-14).

For the reasons set forth above with respect to twice amended claim 2, from which claim 3 directly depends, it is respectfully submitted that claim 3 is patentable over Hogan in view of Elgamal.

As per claim 4, the Examiner states that Hogan discloses the charging system for electronic commerce, wherein:

user terminal generates service request data and digital signature data and transmits them via network to service provider terminal, the service request data is for requesting from service provider terminal desired service for the user and the digital signature data is created based on said service request data (referring to column 8, lines 4-23);

user terminal comprised memory medium which stores service request data (referring to column 4, lines 26-27);

The Examiner concedes, however, that Hogan does not disclose when the user objects to the charge, in response to a fee collection notice from charge collection terminal, the user enables a sending of data stored in memory medium to charge collection terminal, and the charge collection terminal enables the read out service request data and digital signature data from memory medium to confirm the provided desired service. The Examiner states, however, that Elgamal discloses when the user objects to the charge, in response to a fee collection notice from charge collection terminal, the user enables a sending of data stored in memory medium to charge collection terminal, and the charge collection terminal enables the read out service request data and digital signature data from memory medium to confirm the provided desired service (referring to column 14, lines 35-40).

The Examiner concludes that it would have been obvious to one with ordinary skill in the art at the time the invention was made to combine Hogan's system with the step of sending data stored in memory medium as in Elgamal in order to improve the system of Hogan. The Examiner further concludes that when a service provider charges a user a more amount than an amount to charge properly, user can submit request data and digital signature data stored in memory medium to the bank for correcting it.

The Examiner's rejection of claim 4 is respectfully traversed. For the reasons set forth above with respect twice amended claim 1, it is respectfully submitted that claim 4 is patentable over Hogan in view of Elgamal. It is respectfully noted that claim 4 has been twice amended to delete language which has now been incorporated into twice amended claim 1. It is further respectfully submitted that neither Hogan nor Elgamal teach, suggest or indicate that the

signature data is based on the service request data. While it is noted that Elgamal, at column 10, lines 2-74 teaches that:

> The PI message is a signed message from the Card Holder using the Slip described below.
> Slip
> Version, current date, expiration date (Validity Period), Total Amount, Currency, Orderhash, MerAcqHash, Credit Card information (CardInfo),

(where "PI" means Payment Instruction) Elgamal does not teach suggest or indicate that the signature data is based upon the service request data.

The Examiner states that claim 5 contains the same limitations as claim 3, therefore the same rejection applied.

For the reasons set forth above with respect to twice amended claim 4, from which claim 5 directly depends, it is respectfully submitted that claim 5 is patentable over Hogan in view of Elgamal.

The Examiner states that claim 10 is written in function method and contains the same limitations as claim 2, therefore the same rejection applied.

The Examiner's rejection of claim 10 is respectfully traversed. Claim 9 has been twice amended to incorporate language from claim 10. Claim 10 has been twice amended to delete language which has been essentially incorporated into twice amended claim 9. The Examiner contends that Hogan, at column 8, lines 4-23, teaches that the sending of service request data and that the digital signature data is created based on the service request data. As understood, Hogan merely discloses the encrypting of the data. Hogan does not teach, suggest or indicate that the signature data is based on the service request data. Instead, Hogan merely discloses the encrypting of data. Since the language of this portion

of claim 10 has been incorporated into twice amended claim 9, it is respectfully submitted that twice amended claim 9 is patentable over Hogan even in view of Elgamal.

The Examiner's rejection of claim 10 is further traversed for yet another reason. In rejecting claim 10 the Examiner contends that Hogan teaches that the service provider terminal transmits to the charge collection terminal service request data. In doing so the Examiner references column 33-62, yet no such columns exist in Hogan. Furthermore, the Examiner did not reference any line numbers. Notwithstanding the Examiner's apparently incorrect reference to Hogan, it is respectfully submitted that Hogan does not teach, suggest or indicate that the service provider terminal transmits service request data to the charge collection terminal. With applicant's invention as set forth in claim 10, by sending the service request data from the service provider terminal to the charge collection terminal, the charge collection terminal can check the requested fee. It is therefore respectfully submitted that twice amended claim 10 (which retains the feature described above) is patentable over Hogan even in view of Elgamal.

The Examiner states that claim 11 is written in function method and contains the same limitations as claim 3, therefore the same rejection applied.

For the reasons set forth above with respect to claim 3, it is respectfully submitted that claim 11 is patentable over Hogan in view of Elgamal.

The Examiner states that claim 12 is written in function method and contains the same limitations as claim 4, therefore the same rejection applied.

Claim 12 has been amended to delete steps which are in general now recited in twice amended claim 9, from which claim 12

directly depends. For the reasons set forth above with respect to twice amended claims 4 and 9, it is respectfully submitted that twice amended claim 12 is patentable over Hogan in view of Elgamal.

The Examiner states that claim 13 is written in function method and contains the same limitations as claim 5, therefore the same rejection applied.

For the reasons set forth above with respect to twice amended claims 4 and 12, directly depends, it is respectfully submitted that claim 13 is patentable over Hogan in view of Elgamal.

Claims 6 and 14

The Examiner has rejected claims 6 and 14 under 35 U.S.C. §103(a) as being unpatentable over Hogan (U.S. Patent No. 5,699,528) in view of Elgamal (U.S. Patent No. 5,671,279) and further in view of Mizutani et al. (U.S. Patent No. 4,823,388).

As per claim 6, the Examiner concedes that Hogan does not disclose service request data stored once in memory medium is impossible to rewrite. The Examiner states, however, that Mizutani et al. disclose service request data stored once in memory medium is impossible to rewrite (referring to column 2, lines 8-20). The Examiner concludes that it would have been obvious to one with ordinary skill in the art at the time the invention was made to combine Hogan's system with memory medium as in Mizutani et al. because it would improve the system of Hogan. The Examiner further concludes that the user can store service request data once in memory medium and make it cannot be rewritten in order to ensure the security. The Examiner states that claim 14 is written in function method and contains the same limitations as claim 6, therefore the same rejection applied.

Claims 6 and 14 have each been twice amended to more particularly point out applicant's invention. Twice amended claims 6 and 14 now recite a charging system and method of charging wherein said user terminal is controlled by the user, said service request data is stored once in said memory medium, and said service request data is impossible for the user to rewrite. It is respectfully submitted that Mizutani et al. do not teach suggest or indicate such a feature. More particularly, the system of Mizutani et al. prohibits the reading or writing to the pre-recorded data, in this case, key data and enciphering and deciphering algorithms. In contrast, applicant's invention as now set forth in twice amended claims 6 and 14, is directed toward a charging system in which *the data entered by the user, that is, service request data,* is impossible for the user to rewrite. It is therefore respectfully submitted that claims 6 and 14 are patentable over Hogan in view of Elgamal and further in view of Mizutani et al.

In view of the above, it is respectfully submitted that the application is now in condition for allowance. The Examiner's reconsideration and further examination are respectfully requested.

Respectfully submitted,
LIMBACH & LIMBACH L.L.P.

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